REMARKS

Status of application

Claims 1, 3-6, 8, 10-13, 15, and 17-21 have been examined and stand rejected in view of prior art. The pending claims have been amended to more fully clarify the claimed subject matter. Reexamination and reconsideration of the subject application is respectfully requested.

Examiner interview

Applicants graciously thank the Examiner for the Interview conducted on September 18, 2009. The interview was between Examiner Marcus Smith and the Applicants' attorney, Adam C. Stone. Pending Claim 1 that was rejected in the Office Action mailed June 19, 2009 was discussed along with U.S. Patent No. 6,910,074 issued to Amin. In particular, the discussion focused on the following: the 102 rejection of Claim 1 and the Applicants' proposed amendment to Claim 1. No agreement was reached with regard to Applicants' initially proposed amendment. However, agreement was reached on further amendments to Claim 1 discussed during the interview that overcome the 102 rejection of Claim 1 based on Amin. The Applicant is providing herein the further amendments that were discussed during the interview and to which agreement was reached.

Claim amendments

Applicants' claims have been amended to clarify a significant distinction between Applicants' claimed invention and the prior art. The approaches of the prior art for managing a communications session between a layer-2 gateway device and a user device typically involve the user device requesting the layer-2 gateway device to make a change in the quality of service level or involve the user device specifying a desired quality of service level in a request for an application service. In general, the overriding drawback of such user device-centric approaches is that the user device must be configured with quality of service selection and request "intelligence." Further, in the user device-centric approaches of the prior art, an application server acts passively and adjusts the quality of service level in response to an explicit or implicit request to do so from a user device. As noted in the background of Applicant's specification, paragraph [0006], there are significant drawbacks associated with user device-centric approaches for selecting a quality of service level. For example, the vendor of the user device and the vendor of the layer-2 gateway device are often different vendors. This difference can cause

compatibility problems with regard to a user device's ability to request a new quality of service level from a layer-2 gateway device.

In contrast to the approaches of the prior art, Applicant's approach features an application server-centric approach for managing a communications session between a layer-2 gateway device and a user device. Applicant's approach involves an application server capable of actively affecting a change in the quality of service level supported by the communications session. Applicant's approach does not rely on a user device to request a change to the quality of service level and does not rely on a user device to specify a desired quality of service. In Applicant's approach, the application server may actively change the supported quality of service level independent of whether the user device has requested a change to the quality of service level or specified a desired quality of service. Applicant's independent claims have been amended to clarify the distinction between Applicant's application server-centric approach and the user device-centric approach of the prior art. For example, independent Claim 1 now recites:

> the application server receiving a request that originated from the user device;
>
> wherein the request is a request for a particular application service provided by the application server;
>
> **wherein the request is not a request to change the quality of service level supported by the communications session;**
>
> **wherein the request does not specify a desired quality of service level for the communications session;**
>
> in response to receiving the request, the application server determining based upon the request for the particular application service and policy criteria, a second quality of service level to be supported by the communications session; and

(Emphasis added.) Support for the amendments to the claims can be found in at least paragraph [0006] of the specification (describing the drawbacks of user device-centric approaches for selecting the quality of service level) and paragraphs [0022]-[0026] (describing an application server affecting a change in the quality of service level in response to an occurrence of an event where the event "is not limited to any particular type of event.").

Prior art rejections

Section 102 Rejection

Claims 1, 3-6, 8, 10-13, 15, 17-18, 20 and 21 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Amin (U.S. Patent 6,910,074, "*Amin*"). Here, the Examiner likens Applicants' claimed "application server" with *Amin's* Serving LSF coupled to Radio Access Network (RAN). For the reasons provided below, Applicants' claims are patentably distinguishable from *Amin*.

Independent Claims 1, 8, and 15

Prior art solutions, including *Amin*, each cause a change in a communications sessions used by a user device in response to the user device requesting a change in the quality of service level supported by the communications session (either through an express request to change the quality of service level or by specifying a desired quality of service in a request). Applicants' claimed "application server" of Claims 1, 8, and 15, in contrast, can cause a change in the quality of service supported by a communications session without relying on the user device to initiate the change. As discussed below, how a quality of service level supported by a communications session is changed according to Applicants' Claims 1, 8, and 15 differs substantially from prior art approaches.

Consider the typical prior art approach, such as typified by *Amin*. The prior art user device sends an quality of service change request to a layer-2 gateway device which in turn queries a policy server to determine whether the requested quality of service level should be supported. In *Amin* and other similar systems, the policy server acts passively, awaiting a policy request from the layer-2 gateway device. Based on this passive nature, the prior art approaches require intelligence in the user device to select the desired quality of service level which may or may not be optimal.

In Applicants' claimed "application server" of Claims 1, 8, and 15, the approach is very different: Applicants' application server of Claims 1, 8, and 15 sends "a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level to be supported by the communications session." Significantly, in Applicants' application server of Claims 1, 8, and 15, the quality of service level to be supported is determined based on a request from the user device for a particular application service and policy criteria where the request from the user device "is not an express request to change the quality of service level supported by the communications session" and "does not specify a desired quality of service level for the

communications session" (emphasis added). In other words, Applicants' application server of Claims 1, 8, and 15 can actively determine a quality of service level to be supported by the communications session and can actively affect a change in the quality of service level supported by the communications session – without relying on the user device to make a selection of the desired quality of service level or sending a quality of service change request.

A significant advantage of Applicants' approach of Claims 1, 8, and 15 is that quality of service selection intelligence can be centralized in the network; in particular, at an application server. Applicants' approach of Claims 1, 8, and 15 allows policy changes to be made at a single location, for example at an application server, without having to update individual user devices. Another advantage of Applicants' approach of Claims 1, 8, and 15 is that it reduces the amount of intelligence that must be included in user devices (see Applicants' specification, paragraph [0013]). These advantages cannot be achieved by the approaches of the prior art, including *Amin*, that require the user device to specify a desired quality of service level to be supported or require the user device to request a change to the quality of service.

Applicants' independent claims 1, 8, and 15 have been amended to bring these distinctions to the forefront. In particular, Claims 1, 8, and 15 have been amended to emphasize that the request from the user device is not an express request to change the supported quality of service level and does not specify a desired quality of service level:

> wherein the request **is not a request to change the quality of service level supported by the communications session**;
>
> wherein the request **does not specify a desired quality of service level for the communications session**;

(Emphasis added.) All told, Applicants' approach of Claims 1, 8, and 15 affects a change in the quality of service level supported by a communications session between a user device and a layer-2 gateway in a unique and advantageous manner. As Amin's approach requires quality of service selection intelligence to be located in the user device, Amin's approach, if anything, teaches away from Applicants' claimed approach of Claims 1, 8, and 15. In view of the above-discussed amendments and clarifying remarks, it is respectfully submitted that the rejection under Section 102 is overcome.

Remaining Claims

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each dependant claim includes the features of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional features that independently render them patentable. Due to the fundamental differences already identified, a separate discussion of those features is not included at this time.

Conclusion

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a check for the petition for extension of time fee and other applicable fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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